

**INTELLIGENT POWER LEVEL ADJUSTMENT FOR CABLE
MODEMS IN PRESENCE OF NOISE**

ABSTRACT OF THE DISCLOSURE

5 A technique is disclosed for selectively adjusting the power and/or frequency
of cable modems without relying solely on the most recent measurement of these
values to determine whether a change is necessary. Rather, it considers multiple
recent measurements and from these makes its assessment. In one approach, the
technique employs an average of the recent measurements to determine whether a
10 change in power or frequency is necessary. There are actually at least three
determinations that can make use of multiple recent measurements. These include (1)
determining whether the signals are fluctuating to an extent that requires a special
adjustment technique, (2) determining whether an adjustment is necessary (using the
special technique), and (3) determining how large of an adjustment is necessary.

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